approve a shipment that it otherwise would have refused, according to the GAO report.

Critics hold that HACCP is no solution to the problem of food safety. "The results of HACCP to date in the seafood industry have been a disappointment, but not a surprise," says Caroline Smith DeWaal, director of food safety at the Center for Science in the Public Interest in Washington, DC. She claims that the task of checking for HACCP plans, to say nothing of shipment inspection, has overwhelmed the FDA. Smith DeWaal doesn't see much chance for improvement "without a lot of new resources going into the FDA's food safety program."

The FDA wants time for industry and regulators to adjust to the new system before making any assessment. "Any gauge [of HACCP] even prior to a year might be premature," says Ellen Nesheim, a consumer safety officer in the FDA's Office of Seafood in Washington, DC.

To help importers monitor shipments for HACCP compliance, several companies have developed rapid test kits. For example, Neogen offers a kit that tests histamine levels using an ELISA and yields visual color results in an hour. Third-party firms also offer help with HACCP monitoring, and importers hire them to train overseas suppliers. Neogen has seen its market soar and extend to countries such as Ecuador. "The onslaught has been tremendous," says Applewhite. "For HACCP, rapid methodology is about the only way to keep things online."

In public sector research, Rita Colwell, a professor at the University of Maryland's Center of Marine Biotechnology (COMB) in Baltimore, developed a kit for faster testing of *Vibrio cholerae*. COMB is also exploring biosensors for detecting polychlorinated biphenyls and heavy metals in seafood. Later in 1998, a portion of the FDA's marine toxins laboratories will be moved to COMB. "We're very excited about the FDA seafood people coming here," notes COMB director Yonathan Zohar. "Our expertise is complementary. It makes sense."

For both the seafood industry and the FDA, equivalency agreements that help ensure source countries' application of HACCP standards mark the next step. Without these bilateral agreements, importers must take measures themselves to ensure their suppliers' compliance. Faced with the daunting task of assessing foreign countries' food safety systems, however, the FDA has not moved quickly. "Many foreign governments have complained to us," according to Richard Gutting, Jr., senior executive vice president of the National

Tracking Toxicology

This year, the National Toxicology Program (NTP) celebrates 20 years of coordinating toxicology research and testing within the Department of Health and Human Services. The NTP is charged by Congress with providing federal regulatory and research agencies, as well as the general public, with information about chemicals that are potentially toxic to humans, and with strengthening the science base in toxicology. In carrying out its mission over the past two decades, the NTP has emerged as the leading force in designing, conducting, and extrapolating animal assays for toxicity and carcinogenicity. The NTP home page, located at http://ntp-server.niehs.nih.gov/, now offers access to much of the information gleaned by this program.

The About the NTP link on the home page leads to an overview of the program and a description of the evolving strategies being undertaken in order to more efficiently evaluate chemicals for toxic effects. This link also connects to the program's annual plan, which details upcoming and ongoing NTP projects within the three institutes that conduct the program's studies: the NIEHS, the National Institute for Occupational Safety and Health (a division of the Centers for Disease Control and Prevention), and the National Center for Toxicological Research (a division of the Food and Drug Administration).

The News, Events, & Special Reports link leads to a list of press releases, *Federal Register* announcements, and other items of interest. Visitors can also browse the *Liaison Office Update*, a regularly published collection of news items from the NTP Liaison and Scientific Review Office. The News link allows users to review NTP documents that are open for public comment, as well as submit feedback online.

The NTP Studies & Study Results link accesses the heart of the NTP—the actual studies and their results. From this page, users can search a database of completed NTP studies on individual chemical agents and view either the abstract, the chemical health and safety information sheet, or graphic illustrations for a particular study. Users can also view status reports for ongoing studies, as well as specially distilled report data culled from NTP studies, such as an index of specific tumor sites and the carcinogens associated with each site.

The Nomination & Selection Process link leads to information about the process for nominating chemicals to be reviewed by the NTP, and allows users to make nominations. Nominations are welcomed from academia, federal and state regulatory and health agencies, industry, environmental groups, and the general public. The NTP uses such nominations to help prioritize the chemicals to be studied in each fiscal year.

The NTP home page offers access to the current published version of the *Report on Carcinogens*, which lists chemicals as "known human carcinogens" or "reasonably anticipated to be human carcinogens," through the Environmental Health Information Service (located at http://ehis.niehs.nih.gov). Viewers can also check on the status of the next version of the report. This link also describes the procedures and criteria for nominating substances for listing or delisting in the report, and contains information on what chemicals are currently under review for future inclusion in the report.

Access to the home pages for the NTP Center for Evaluation of Alternative Toxicological Methods and the NTP Center for Evaluation of Risks to Human Reproduction is available from the NTP site. Each of these centers has its own unique mission. The human reproduction center will assess the human reproductive risks from chemicals and chemical mixtures, and provide a centralized source of public information on such risks, while the alternative methods center will attempt to identify more efficacious means for identifying the toxic effects of chemicals.

The Request Information, Receive Announcements, and Publications links allows visitors to subscribe to the NTP List Server to receive program news and updates via e-mail, as well order some NTP publications.